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PHTHISIS IN CALIFORNIA.

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[Communicated for the Boston Medical and Surgical Journal.]

In the early history of Americanized California, the accounts of the salubrity of the climate transmitted to the East caused many phthisical invalids to look toward our State for that alleviation or cure which seemed to be denied to them in other localities. The beneficial effects on asthma and some affections of the larynx, produced by a short residence, served to increase the confidence of all in the expressed opinion of the pioneers that the peculiar climate of California was well adapted to sufferers from all diseases of the air passages. The members of the medical profession were particularly ardent in the advocacy of its superior claims, and numbers of invalids were induced to visit our shores and test the virtues of the diversified climates of our valleys, mountains and seaboard.

After the lapse of a few years, the attention of physicians was called to the necrological statistics which had been commenced by several undertakers in the larger cities and towns. A glance at these was sufficient to show that the per-centage of deaths from phthisis controverted the previously received opinion that few well-marked cases of the disease were to be found in California; still the number was so small, that several writers published the idea that they were cases of confirmed disease before arriving in the State, and that where such a condition was not present, no danger need be feared from the dreaded enemy.

Time has now revealed the fallacy of this opinion. The experience of ten years is before us, and our local statistics reveal the fact that the per-centage of deaths from consumption in the cities and towns of California is as large as in many portions of the older States.

While a radical change, founded upon experience and statistical information in relation to the prevalence of the disease and the adaptability of the climate for the consumptive, has taken place in

the minds of most of our local physicians, it is evident that some practitioners at the East have not availed themselves of the facts in this connection, and continue to recommend a residence here to those who are affected by pulmonary disease.

In the exercise of my duties, I have frequently met with patients of this class, who had been ordered to California. With no definite directions in relation to the best route, and no suggestions that beneficial effects would more probably follow from a trip via "*Cape Horn*," the invalid generally seeks our State by the quickest route, and arrives exhausted by the rapid trip on crowded steamers, through a great variety of climates. Somewhat broken down in mind and body, he frequently travels from the bracing winds of the coast to the genial climate of the interior valleys, where, during the greater portion of the year, the great contrasts between the heat of the day and night, and the debilitating effects of malaria, exert a highly injurious influence on the disease.

As before intimated, the earlier records of the State tell us of few cases of tuberculous disease of the lungs. Travellers through the territory of *Las Californias* have generally claimed for its inhabitants an exemption from the severer forms of pulmonary disease. The vigorous constitutions of the early Californians, their habits of horseback exercise and free use of beef and fat, were undoubtedly powerful agents in preventing that condition which is favorable to the development of tuberculous disease. The pioneer American settlers were also remarkably vigorous and of manly habits. In most instances they had reached the Territory either by a long and perilous journey over the Nevadas, or by sea, after serving a severe apprenticeship on the whaleship or merchantman. The hunters for years in the wilderness west of the Rocky Mountains, in the pursuit of game have crossed the great mountain range which forms the eastern boundary of California, and in many cases the luxuriant soil and pleasant skies tempted them to remain and fix their rough homes in the valleys of the Pacific Coast. Among such a people, we could hardly expect to find that class of diseases which seems to thrive best in the midst of a sedentary population.

Upon the discovery of gold, a new class of population rushed to California from every portion of the globe; and as the country became thickly settled, the habits, social customs and necessities incident to a town life at the East were introduced into the principal places, and from that period consumption began to appear upon the death record.

Since 1850, a mortality record has been kept in Sacramento by the undertakers of the city; and from this, Dr. T. M. Logan framed with great care his series of valuable mortuary tables, which he appended to an able report on *Topography, Meteorology, Endemics and Epidemics*, read before the State Medical Society at its session in 1857. For the purpose of presenting some facts in re-

lation to the increase and prevalence of phthisis in California, I have copied the following table of the per-centage of deaths from phthisis during the period from 1850 to 1857 inclusive.

Year.	Per-centage of Deaths from Phthisis.
1850	2.89
1851	6.79
1852	4.09
1853	6.61
1854	10.94
1855	13.27
1856	17.72
1857	17.36

It will be noticed that the per-centage for 1852 is less than that of the preceding year. This is accounted for by the fact that during that year an epidemic of cholera visited the city, and consequently the entire mortality was much greater.

The Sacramento City and County Hospital for the relief of the indigent sick, was established a few years ago, under the general laws of the State, by the local authorities, and excepting in rare instances patients are only received from the district whose bounds are the same as those of the city and county. This district is located in the midst of the great Sacramento Valley, and its inhabitants are subject to the malarious influences which obtain in that region. The city is located near the north-west corner of the district, but supplies only about one third of the cases treated at the Hospital—a large majority being sent from the north-eastern and eastern portions of the county, where the malarious poison seems to be more concentrated, since the introduction of mining ditches and reservoirs and the consequent increase of the products of vegetable decomposition. The average number of patients is about sixty; and to show the reader the nature of the principal diseases, I have compiled the following table from the general record of the institution.

Table showing the per-centage of the principal diseases in one thousand cases.

Name of Disease.	Per-centage.
Intermittent Fever	28.
Continued Fever	4.20
Rheumatism	9.69
Ophthalmia	4.74
Bronchitis	2.26
Diarrhœa and Dysentery	3.77
Local and General Palsy	3.33
Diseases of the Heart	.53

In May, 1858, I commenced my duties as Resident Physician, and since that time have paid considerable attention to the history of phthisical cases. In most of them I have verified my diagnoses by autopsies, which although conducted in the midst of a busy professional life, were sufficiently extended to determine the nature of the disease and the parts implicated.

It has been my invariable custom, whenever an application was

made for admittance by a patient with confirmed phthisis, to endeavor to persuade him to remain away from the Hospital air and associations. In numbers of instances my advice in this respect has been followed. During this period of about eighteen months there have been seventy-nine deaths from various causes; and of this number, twenty-five, or 31.64 per cent., were from phthisis. It will be of interest to note the fact that but four of these twenty-five cases ever remembered to have had any trouble about the thoracic organs prior to their emigration to California. Of these four, two were affected by confirmed disease at the East, and were recommended a residence in California for relief; the other two had been affected by hæmoptysis and other incipient symptoms.

Of the twenty-one cases who were confident of the presence of no pulmonary symptoms prior to leaving their old homes, seven had mothers who died of consumption; and, in one case, both parents were affected by the same malady. In the majority of the remaining cases, the parents were living, and the sufferers had no knowledge that the disease was hereditary. They had pursued the usual occupations of the people of this section, and in numbers of instances had been seriously affected by the periodical fevers so common here at certain seasons of the year.

It has been the custom, among some of the wealthier families of California, to take from the Digger tribes of California Indians, young boys or girls for the purpose of bringing them up to service, and thus to supply the existing scarcity of help. In many cases these boys and girls, on arriving at the age of puberty, have become the victims of tuberculous disease. In one of the fatal cases at the Hospital, occurring in a native Indian girl who had been living with a white family for five years, the tuberculous deposition was found in the lungs, mesenteric ganglions, liver and brain.

It is probable that few of the Digger Indians, when left in their natural condition, are affected by tubercle; but it is certain that frequent deaths of their offspring occur from tuberculosis, when they exchange their mud huts and vermin diet for the comfortable homes and food of civilized people.

It is difficult to give a good reason for the development of a tuberculous cachexia in Californians who are not hereditarily predisposed to phthisis. Our white population are generally well fed and properly clothed, and do not abuse spirituous liquors. It is probable, however, that the same causes which have led to the rapid filling up of our State Insane Asylum, exert considerable influence in this connection, and cases of mental depression induced by disappointed hopes in the strife for wealth and position are very common.

In some respects, a resident of California is subjected to certain peculiar influences which are unknown in other sections of the

Union. The periodicity of the rains and the low measure of humidity during the dry season are the chief of these, and it will be interesting to determine whether the mild and elastic climate of our valleys generates diseases of the respiratory organs, or whether the prevalence of pulmonary affections has been induced by those exhausting vices and passions which interfere with the nutrient function and lower the vital forces.

Sacramento, California, November 1, 1859.

REPORT OF PROF. FERDINAND HEBRA'S LECTURES ON VARIOLA,

Delivered at the General Hospital at Vienna.

[Translated from the *Allgemeine Wiener Zeitung*, Nos. 28, 33, 35, 36, for the Boston Medical and Surgical Journal.—Continued from page 455.]

BY B. JOY JEFFRIES, M.D.

These crusts are not all alike in appearance. Those on the face, for instance, are different in shape and color from others on the extremities, especially on the hands. On the face they are yellow, like dried gum, stand out like tubercles, and are brittle. The fluid dries as if it was outside the epidermis. On the rest of the body the scabs are more or less flat, and on the hands look like brown lenticular-shaped bodies, embedded between the layers of epidermis, from which they can be peeled out. The shape of their under surface also varies. The majority are compact and flat; some, however, like a pod, have the upper surface convex. On removing them, there will be found underneath, little projections, called smallpox warts; but these afterward disappear. Under the scab the skin is reddened, but not always indented and scarred, in fact very often smooth. A scar comes only on those places where the suppuration has extended down deep. Hence, even after confluent smallpox, the scars are seldom universal, but are seen on isolated spots.

With regard to the shape of the variola eruption, we must notice that the pustules were once considered to have such a characteristic form that a single one was sufficient to determine the diagnosis. Prof. Hebra has for many years called attention to the incorrectness of this idea. The smallpox eruption has not of itself *any* characteristic peculiarity. We find in other diseases of the skin, papules, vesicles, and pustules exactly like those of variola. We need, therefore, the aggregate of all the appearances for the diagnosis of the disease. And in the majority of cases this is easy only because we know of no other similar acute disease accompanied with fever, and causing such an eruption on the whole body. The affection that resembles the variola in its external appearance, namely a syphilitic pustular eruption, might readily be mistaken for it when feverish symptoms are present.

The size of the pustules depends upon whether they stand alone, each one occupying a single hair follicle, or a group of follicles close together. By observing carefully, we shall see that upon the same person some pustules are not larger than the head of a pin, others as large, or even larger than a bean, and that the larger ones are formed by the confluence of the smaller. The smaller ones, about the size of a pin's head, surround the openings of the hair follicles. They are not exceptional, but are seen everywhere near the larger ones. In some cases the pustules do not exceed a millet or hemp seed in size. This form is distinguished by the name of variola miliformis seu miliaris. In localities where miliaria is very prevalent, it may be mistaken for variola. In the majority of cases the pustules are of the size of a pea. Sometimes several run together, forming a larger one like a bubble, the size of a bean, a walnut, or even a pigeon's egg. Hence they get the names of variola globulosa, conica or pemphigosa, which are found in many works. So mention is made of a variola verrucoso, that is, where the little wart that we spoke of above, is formed under the crust. These characteristics are, however, of no practical value. We might, in fact, make the list of them as long as we choose.

It was once thought that the upper surface, and the structure of the pustule, afforded especial characteristic differences. Thus we had, 1st, "dells"; 2d, "pseudo-membranes"; 3d, a "cellular structure." We will now see what is to be made of these data.

A "dell" is understood to be a navel-like depression on the summit or greatest convexity of the pustule. But this is by no means peculiar to a variola pustule. We know that the sebaceous glands when filled often appear like little bubbles, and when distended like vesicles. If the centre is depressed, like a little dell, it is called molluscum varioliforme, or comedo varioloformis. Here, therefore, the dell is caused by the accumulation of the sebum. We can also see this little dell or depression on vesicles or pustules caused by the action of croton oil, or tartarized antimony, on the skin. The same may be found in herpes, in scabies, &c. We explain this as follows. In recalling the construction of a hair-follicle, we must not forget that it does not form an empty space, but is filled up with epidermis-cells, the epidermis continuing, as is known, into the follicle, and forming a sheath for the root of the hair. If, now, from any cause, an exudation occurs into a hair-follicle, the epidermis-cells imbibe the fluid, become succulent, and the swelling shows itself by a projection in the form of a papule at the mouth of the follicle. The fluid continues to exude, presses apart the separate layers of epidermis, and forms little drops. These collect under the upper layers of epidermis, which afford more resistance from being hardened by exposure to the air, and prevent the evaporation of the fluid. Thus vesicles are formed, which change into pustules from the alteration of the

blastema into pus. In this condition the hair generally falls out. As, however, the sheath of the root of the hair in the follicle holds fast, the exudation will take place somewhat slower, so that the epidermis on the periphery will *first* be raised, forming thereby the little dell in the centre. Later, the more adherent sheath gives way before the continued exudation. If the fluid forms very fast, the epidermis is raised evenly, and no depression will be seen.

Hence it is, that under certain circumstances a navel-like depression is formed, whether the eruption is the result of a variolous process, or of an application of croton oil or tartarized antimony, or is caused by the itch or by the patient, who has it, scratching himself.

From the above explanation it can be seen that a vesicle is not to be considered a hollow filled with fluid, but a fluid held within the spaces formed by the separation of the epidermal layers—somewhat like the cellular structure of a grape, or of the vitreous humor. A single puncture does not let out all the fluid held within, but only a part, on account of the walls of the cellular compartments. In the same way we can puncture a variolous pustule at one point, without the whole of the contents flowing out. This well-known fact has been incorrectly interpreted. The pustule was considered to consist of regular compartments, and the division walls formed by the epidermis were held to be the result of plastic exudation. This, however, is quite incorrect.

If, now, a variola pustule (from which the exudation has caused the hair to fall) be cut through, the sheath of the root of the hair will be seen pressed together and forming a thicker wall of epidermis in the centre. This has been incorrectly regarded as pseudo-membrane. Later, as the vesicle becomes a pustule, it is broken down, and there is then one common space.

From this it is easy to see that neither the existence of a little depression, nor a cellular structure, or this supposed pseudo-membrane, can be considered characteristic of variola. And these are of as little value in distinguishing the different forms of smallpox.

On the circumference of the eruption we notice a reddish ring, a halo. It has been supposed that this appears only with variola vera. Such is not, however, the case. The halo is a reactive reddening that is developed around every pustule from absorption of its contents, just as we see a reactive inflammation around a furuncle or an abscess. In varicella, the disease runs on so fast that the formation of pus occurs at once, and this halo is therefore present almost from the beginning. In variola vera, on the contrary, it appears later, when the alteration into pus takes place.

It is difficult to say which of the many different forms of smallpox are to be considered natural; and further, which is the true type, variola vera, modificata or varicella, or what is the normal course of these forms. We must first compare the two extremes

of the disease, as regards duration. If we call that form which lasts the shortest, varicella, and that which lasts the longest, variola vera, the first must continue *less* than fourteen days, and the latter *more* than four weeks, to be considered abnormal. By such an abortive form of varicella, the entire disease will be run through in three or four days. For instance, we find a child well one day, and on the next with varicella. On the second day there is a new eruption, and perhaps again on the third. The vesicles are only filled with serum. On the fourth day they have all dried, so that we find only scabs, which generally disappear on the same day. This is the quickest succession that we can expect. It is important to notice this, because we often hear of an acute pemphigus, when probably nothing else is meant than such a form of varicella, which is frequently called the *sheep-pox*. Besides the cases that last three or four days, there are others which continue some seven to ten days. The duration of the majority, however, is fourteen days.

Some cases of variola vera, aside from metastases, are very protracted, lasting forty days, without, however, this tedious course affecting any of the organs of the body. We see this where the eruption is very profuse; it was formerly called variola confluens. When so protracted as this, it was also called variola nervosa. Those cases running through quickly were called variolæ inflammatoriæ or phlogisticæ.

As to the number of the pustules, there are, no doubt, varicellæ where they are so few as to be easily counted (e. g., five to ten), and may be readily overlooked. During an epidemic, such cases are easily determined, but at other times a positive diagnosis is often impossible. We call that form variola confluens which is the opposite of this, i. e., where the pustules are so near each other as to be not only in contact, but run together, so that the whole epidermis is undermined by a layer of pus. This confluence occurs, of course, in the later stages of the disease. But cases occur where from the first the development of papules is so great that one touches another, and the whole cutis feels hard, like a board, from the infiltration, and our diagnosis could scarcely be smallpox, were not here and there several papules to be seen. Such a form, however, occurs very rarely. Most generally this confluence comes in the eruptive stage. Confluent smallpox is the most dangerous. It threatens life by the amount of pus which is absorbed from such an extent of surface.

We have all degrees between these two extremes of the eruption. A confluence of the pustules is often noticed only on certain spots, whilst some portions of the skin are entirely free from the eruption. This confluence is most disposed to occur on those parts of the skin which have been in any way irritated, by vesication, for example, or in consequence of the patient's occupation. The pustules become confluent first on the face and hands, because

these parts are most irritated by washing, rubbing, and by contact with the air. And perhaps more particularly the face, from the presence of so many sebaceous glands. Immense numbers of pustules are also generally seen on those places which have been exposed to continued pressure before the eruption of the variola, or have been the seat of other skin diseases. Among these are to be reckoned those parts where tight clothing, or belts, garters, trusses, &c., press. The same happens where there has been eczema or scabies. In patients with the latter trouble, the pustules will be thickest on the nates. If, for instance, in the stadium prodromorum, when the diagnosis cannot be made out, a patient complains of pain in any one part, and a counter-irritant is applied there (e. g., a vesicant or sinapism), this spot will be covered with the eruption later in the disease, and also with scars, although the rest of the body remains free. This is so constant that people who have had scabies, eczema, psoriasis, lichen or any "exudative" skin disease, and are attacked with variola, will almost always exhibit on the same spots this confluence of the pustules.

Hence it can be seen how injurious it is to employ any irritant over large portions of the skin, as used to be the custom when the smallpox was supposed to be in the blood, and all possible means were to be used to aid the eruption. As great heat is an irritant of the skin, we may well suppose that a high temperature is also injurious, and that therefore cold is to be employed, although this cannot *prevent* the confluence of the pustules.

[To be continued.]

REMARKS ON PULMONARY CONSUMPTION, &c.

BY EDWARD JENNER COXE, M.D., VISITING PHYSICIAN, CHARITY HOSPITAL, NEW ORLEANS.

[Continued from page 438.]

ALTHOUGH an admitted fact, that consumption is a curable disease, the unanswerable reasons why cures must necessarily be of rare occurrence have been in part presented. Will not the same hold good when applied to other diseases of known dangerous character—as yellow fever, or croup? Taken in time, and treated by remedies adapted to the existing symptoms, due regard being given to the known character of both diseases, and the marked tendency to rapidity of progress, both are eminently under the control of appropriate treatment; whereas, if that be deferred until the appearance of black vomit or suppression of urine in one, and a false membrane in the other, must it not be admitted that a cure would be the exception to the general law?

Among the numerous causes of the infrequency of cures of consumption, it may not be amiss to cite the acts of those most interested, who, feeling weak, and presenting other evidences in addi-

tion to a long-continued, and at times peculiar cough, will persist in asserting they are not sick, will neither seek nor take timely advice, but will run counter to every law of prudence or Nature, until, too late, they awake to the sad reality, and then ask for advice—vainly hoping their case may prove an exception to the general law. As I view this all-important subject, I cannot but entertain the opinion that no small degree of censure justly appertains to not a few of the profession, who would seem called upon to recommend the long-continued trial of remedies, not unreasonably believed to fulfil important indications, instead of being satisfied with long-tried placebos, valuable as palliatives though they may be. For the majority of cases of consumption, no less in the incipient stages than in those more advanced, as far as my observation has extended, there is one broad principle of treatment, not only applicable, but, sooner or later, absolutely demanded, that of sustaining and augmenting the physical strength, the *vis vitæ*, by bringing to our aid all of the remedial and curative agents in our possession, thus affording nature an opportunity of overcoming the morbid condition, in her own time and manner. If this point is not constantly and perseveringly attended to, as well by the physician as by the patient, the probability of overcoming the disease will be small indeed; while, if faithfully carried out, it is impossible for any one to predict with certainty what will be the result, as strikingly exemplified in the case to be related. Is it not the bounden duty of our profession to act as if the belief was really entertained, that restoration to a reasonable degree of health was not impossible?—all of which can be done, without concealing the real state of the case.

To those who have seen much of consumption, the fact is well known that there are cases, and certain conditions in others, in which the finale, "and that not far removed," will advance with great rapidity, setting at naught all our resources but those for palliation. There are other cases in which there do occur occasional exacerbations, requiring caution in the free use of the more active tonics, it being no unusual occurrence to be obliged to suspend their employment until, by the substitution of appropriate remedies, the condition, "generally that of sub-acute inflammation," shall be removed, when the use of tonics may properly be resumed. In these cases, however apparent may seem the necessity for the employment of depletory measures, it must be remembered that they are of doubtful efficacy, and that the risk of producing a depression of strength should be duly weighed before resorting to them, particularly as other remedial agents will be found more safe, and equally if not more efficacious.

During the treatment of the different stages of consumption, it is of primary importance to preserve a natural or healthy condition of the alimentary canal, in order to enable digestion to be properly performed, and, as a necessary consequence, the forma-

tion of healthy blood, which, in my opinion, is an important element of success, as regards successful treatment. Should a laxative be required, one of a tonic character, or an enema, is to be chosen, to avoid extra purgation, and the possibility of depression, at all times and in all cases to be guarded against, and more particularly in the advanced stages. There is no doubt, that, in this disease, a tendency to costiveness is far more favorable, in aid of a proper course of treatment, than the opposite, diarrhœa, or even occasional looseness. To favor the natural tendency to depression of strength, is here an easy matter, while to sustain, and still more to increase it, will be found always difficult, and often beyond our power. Not a few of the above remarks have been educed by the fact of having seen many consumptives, who had left, or been sent from their homes without having received any instruction for their guidance, as though the prevalent fallacious idea of a more genial atmosphere was, *per se*, capable of eradicating the well-known effects of that disease.

If the view I entertain of the *fons et origo* of consumption be correct, the erroneous impression, that much real good will result from mere change of climate, should give way to a more positive medicinal treatment, mainly of a tonic character.

Personal observation in the climates of Buenos Ayres, the Island of Madeira, and the south of Europe, has fully satisfied my mind, that far too much has been attributed to, as well as expected from, the curative power of each climate; and while fully aware, by observation, of the beneficial palliative effects resulting to a few, who resorted to those far-famed places, during the incipient stage of the disease, I am equally certain that, in a strictly curative point of view, the actual benefit received was not great, and when contrasted with the necessary discomforts that few escape, even if abounding in pecuniary resources, as well as the absence of those real comforts to the sick—home and friends in most cases left behind—is it not fair to infer, that the positive amount of benefit will be small? The possible, if not probable benefit, to accrue to a large portion of the human family, by the promulgation of facts, in reference to the real power of our profession to cure consumption, authorizes and justifies the assertion, that if that disease is to be proved to be more successfully treated, and the trite phrase, curability of consumption, become more than a by-word for the benefit of quacks and their abettors, it can only be so rendered by the assiduous employment of other means than those mostly confided in at the present day, although in themselves not objectionable as auxiliaries. If those apprehensive of the disease, from whatever cause proceeding, or those laboring under the incipient or more advanced stages, really desire to preserve health, or improve it when impaired, and overcome the disease actually existing, it may be remarked with confidence, that the same degree of energy, or will, put forth for this purpose, as is so con-

spicuously expended in efforts to enjoy the pleasures of life, or procure the goods of this world, would enable our profession to triumph over that correctly considered *opprobrium medicinæ et medicorum.*

With the above preparatory remarks, naturally suggested by the importance of the subject, I now proceed to state the case which originated them. Fearful of trespassing too much on your pages, the continuation will shortly follow.

MODERN CONVENIENCES—LEADEN RESERVOIRS—LEAD PIPE—COPPER BOILERS AND BELL METAL.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I will not encroach upon your pages by a lengthy article upon the above subjects, but I would respectfully inquire of those who make chemistry a specialty—of the medical profession, and of the public at large, if, in the middle of the nineteenth century—this boasted age of scientific advancement and artistic skill, it is not disgracefully humiliating that so many in the community must be prematurely consigned to the grave, by daily swallowing poison introduced into their food by the unsafe arrangement, and ignorant and careless management, of what are termed "modern conveniences."

Having recently been called to attend several cases of severe colic, induced by eating cranberries and apples stewed in copper and bell-metal vessels, and still more recently having discovered that the members of a family* in one of the finest residences in Boston had been slowly and seriously poisoned by the cook (who was ignorant of the danger) having, for a long period, been using the water drawn from the copper boiler, connecting by a lead pipe with a lead reservoir, in preparing the tea and coffee, and boiling the vegetables; and knowing this to be no uncommon occurrence, I cannot but envy our ancestors, who (although they sometimes were made sick by the use of bell-metal) drank pure water from "the Old Oaken Bucket," and were blessedly ignorant of "modern conveniences" by which we are so luxuriously poisoned, and finally die, under the scientific cognomens of "gastritis," "enteritis," "carcinus" and "paralysis."

But surely some method can be devised by which we can enjoy the benefits of modern improvements, without such risk to health and life. Let water be introduced into kitchens only through *iron, glass, wood,* or *gutta percha.* So arrange the hot-water apparatus that it can only be drawn in the chambers where it is required for bathing, &c., and once a week, or more frequently if necessary, let on the water in the wash-room by a lock-faucet, the key of which

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* The water drank by the family alluded to above, has been analyzed by Dr. A. A. Hayes, exhibiting a fearful result.

can be kept in a secure place. Banish forever from the kitchen lead pipe, copper vessels, and copper covers (if the copper is tinned, the tin is soon worn off), and families may feel comparatively safe from domestic poisoning.

One suggestion more, and I have done. Should an individual prefer to take lead and copper with his sustenance, perhaps it might be considered rather oppressive to deny him the privilege. Yet it would seem but just, that those who do not admire these paralyzing condiments, should be protected by the legal appointment of judicious inspectors, whose duty it should be to examine the culinary apparatus in all our public institutions, hotels, confectioneries, and restaurants.

A sanitary provision of this nature, if rigidly enforced, would, we sincerely believe, materially diminish the records of mortality.

Roxbury, Jan. 2d, 1860. CHAS. M. WINDSHIP, M.D.

Correspondence.

London, Nov. 16th, 1859.

AN EVENING WITH THE MEDICO-CHIRURGICAL SOCIETY.—A trip to Sydenham by rail, and an inspection of the "Crystal Palace," is not to be omitted by the visitor of London at the present day. And whatever expectations may have been entertained previous to the expedition, it is perfectly safe to say that they will be even more than fulfilled. But I must not enlarge upon the labyrinths of wonders contained in the "Palace"—such an account, even if I could give it with fidelity, would not be suitable for the JOURNAL, and so I must come back from the gorgeous accumulations of curiosities and beauties of every description—nay, even turn away from the mimic representation of the courts of the "Alhambra" itself, and again approach your pages with a few professional "jottings down."

Returning, on Tuesday, November 8th, from that same aforesaid Sydenham, and full of *palatial* musings, I had the pleasure of accepting a particularly kind invitation to dine with Dr. Sibson, of whom I have already written you. Dr. S. had promised to convoy me to the rooms of the Medico-Chirurgical Society, which was to hold its first meeting, for the season, in the evening. The experiences of the session were so interesting to me, that I have thought some account thereof might not be unacceptable to your readers.

The attendance was very large—unusually so, as Dr. Sibson informed me—probably because it was the opening meeting of the season. The rooms devoted to the Society's purposes are large, handsome, well lighted, and appropriately and comfortably furnished. I think the hall in which the meeting was convened must hold at least two hundred and fifty or three hundred persons—and every available place seemed taken, on the evening I have referred to. It is difficult to judge of numbers assembled in a room of the size of that spoken of, without taking the pains to make an approximative estimate—as by counting the persons on a row of seats, for instance—and I may have over-estimated the attendance; at all events, it was very large, and

showed great interest on the part of the members. No less so did the transactions and discussions of the evening. To a medical man from our side of the water—or to any professional stranger—it is a matter of no little gratification to see so many distinguished men, most of whom are conspicuously before the medical world as practitioners or authors, or both. I fear the patience of my obliging host was not a little taxed by me; for I could not resist asking him the name of every speaker. A mention of some of the names thus learned will suffice to justify my interest in seeing their owners. Mr. F. C. Skey, F.R.S., is now the President of the Society, and occupied the chair. Amongst the many others who were either speakers, or to whom my attention was otherwise directed, were Drs. Copland, Barclay, George Johnson, and W. J. Little; Mr. Henry Thompson, Mr. Holmes Coote, Mr. Toynbee, Mr. Wm. Adams, Mr. John Adams of the London Hospital, Mr. Prescott Hewett, Mr. Solly, and Mr. Pollock. In conversation with the latter gentleman, after the adjournment of the meeting, and while the members were taking coffee in the ante-room, he told me he had been in the United States, and was much pleased with Boston. He is one of the Surgeons at St. George's Hospital.

Several topics of interest, both medically and surgically, were discussed in a lively and most courteous manner—each member rising when he addressed the Chair, and remaining standing during his remarks.

A case of Aneurism of the Abdominal Aorta was detailed at some length by Mr. Solly. The patient, a Capt. W., had been affected with the aneurism during three years. Nature seemed, at several different epochs, to set up a curative action; but the patient's habits tended to defeat her efforts. I was somewhat surprised at the number of remedies which had been prescribed and used. Thus, quinine, creasote, opium, &c., had been persistently tried. The patient was bled but once—if I rightly understood the reporter.

Valsalva's treatment was spoken of by Mr. Adams, of the London Hospital, as that which would have been likely to have proved effectual in the above case. This view was opposed by Mr. Holmes Coote, Assistant Surgeon to St. Bartholomew's and the Orthopædic Hospitals, and also by Dr. Copland and others.

An interesting report of a case of Tubal Gestation was sent to the meeting by Dr. Robert Lee, Obstetric Physician to St. George's Hospital, and was read by the Secretary. The patient had been under the care of Mr. Gregory Forbes. She menstruated rather freely about a month before death: was attacked with very violent pain on the 8th of October, and died the next morning. Collapse was complete. The left Fallopian tube was ruptured, an ovum having been developed therein. Three pints of blood were found in the cavity of the abdomen. No embryo discovered on dissection, nor any trace of the amnion or umbilical vesicle. The cavity of the uterus contained no deciduum, but the latter was found by Dr. Lee in the Fallopian tube.

Having had an opportunity, before sending this to the JOURNAL, of looking at the number of the *Lancet* for Nov. 19th, 1859, I find this portion of the proceedings of the evening so much more fully reported than I can give it from my hasty sketch, taken from memory after the meeting, that I venture to quote from its pages the concluding part of Dr. Lee's account, as there condensed. It reads as follows:

"The Fallopian tube and ovarium were alone permitted to be removed; and these were examined, under spirit, by Dr. Lee, who found a deciduous membrane adhering to the inner surface of the tube, and enclosing the villi and membrane of the chorion on all sides. The hæmorrhage was evidently traceable to a rupture in the decidua and adhering portion of the tube, by which a communication was established between the cells of the villi of the chorion and placenta and the sac of the peritoneum, through which the blood flowed from the cells of the chorion into the abdominal cavity.

"Dr. BARCLAY, in the absence of the author, said he believed it was the object of Dr. Lee to confirm the statement he had made before the Society last session, that in cases of tubal gestation the deciduum was found in the Fallopian tube, and not in the uterus."

A discussion on "Double Club-Foot and Club-Hand," both observed in the same infant, next occupied the attention of the meeting, and although I find my notes accurate, on comparing them with the *Lancet's* report, yet the latter is so much more full and satisfactory that I shall be excused for transcribing it.

"*A Case of Double Club-foot* (*talipes varus*) *and Club-hand in the same Infant.*—By HOLMES COOTE, ESQ., F.R.C.S., Assistant Surgeon to St. Bartholomew's and the Orthopædic Hospitals.—The author read the particulars of a case of double club-foot and club-hand in the same infant. He remarked that such an occurrence was very rare, no similar specimen existing in the museum of the Royal Orthopædic Hospital. There were cases on record in which both hands and feet were congenitally *deformed;* but in the present instance there was only displacement, the component parts of the hands being as perfect as were those of the feet in their abnormal position. He added some remarks upon the difference between deformities caused by arrest of development and displacements or alterations in form from mechanical pressure. He argued that club-foot, in its usual congenital form, was due to pressure during intra-uterine life. Some preparations of deformity were exhibited.

"Mr. WM. ADAMS thought the case brought forward by Mr. Coote was totally opposed to the theory that such deformities were produced by pressure in utero. In his opinion, such cases rather strengthened the view advocated by Dr. Little, that deformities were the result of dynamic causes, more or less dependent on the nervous system. The worst case he (Mr. Adams) had ever seen was that of a child born with two club-feet, two club-hands, two contracted knees, two contracted hips, and a contracted neck. Severe cases, in which several parts were implicated, might be traced frequently between the third and fourth month of pregnancy.

"Dr. LITTLE remarked that the occurrence in the same individual of double club-foot and double club-hand was not so rare as might be supposed from the circumstance that the museum of the Orthopædic Hospital did not contain a single specimen of that deformity. At least a dozen fœtuses illustrating that peculiarity were to be found in the museum at Berlin. The oldest theory was, that pressure in utero was capable of producing such distortions; but he thought that more extended observation had distinctly proved that the deformities, both before and after birth, depended upon a great variety of causes, and that almost every cause of deformity which might occur after birth occasionally took place in utero. Recollecting the symmetrical character of the deformities, their number and variety, and the early period at which they occurred, when the proportion of the liquor amnii to the fœtus was so large, he had no doubt that congenital cases often resulted from causes operating upon the nervous system of the child through that of the parent, or through accidental injury to the mother in the early periods of gestation. Cases had come under his observation which were only to be explained by the malposition of the limbs in utero; but such instances were very rare. An important class of cases, clearly referable to accidental injury, consisted of those in which the child was found with limbs variously distorted or deformed through the influences exerted upon them by the umbilical cord. It was difficult to lay down any absolute plan of treatment in cases of club-hand. There was no

ground to despair, he thought, unless the hand was extremely deficient, of effecting much good by treatment, when we take into consideration the identity of cause in the production of this deformity and that of club-foot. He had frequently seen good results from tenotomy and mechanical treatment in cases of club-hand.

"Mr. HOLMES COOTE was still of opinion that the deformities in question were the direct results of pressure exerted on the child in utero. It surely was not extraordinary that all the extremities should occasionally be subject to the same kind of pressure. If it were possible that anything like an impression upon the mother, or any accidental circumstance, should have any great effect on the development of the fœtus in utero, the deformities would be of much more frequent occurrence than they were."

The remarks of Dr. Little were listened to with the most respectful attention—his large experience in these deformities entitling his opinions to great weight and consideration.

I was highly gratified with all that I saw and heard at this reunion of so many choice specimens of our profession; and I feel that I owe much to my friend Dr. J. M. Warren, who by kindly introducing me to Dr. Sibson, enabled me to realize so much benefit and to experience so much pleasure in that gentleman's company on this and other occasions. Everything during the session was done in an easy yet dignified and appropriate manner. No impatience was manifested at the reading of papers—sometimes rather lengthy, too—and due regard was paid to the courtesies of debate.

I noticed that the papers presented were read by the Secretary, and that "votes of thanks" were passed to each of the authors. Whether the Secretary always reads the communications, I am not aware; if he does, his office—like that of most secretaries, however—is certainly no sinecure.

At a somewhat late hour—toward 11 o'clock, P.M.—I concluded my very agreeable and profitable Evening with the Medico-Chirurgical Society. VIATOR.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 12, 1860.

COMPARATIVE ADVANTAGES OF ETHER AND CHLOROFORM.—In a discussion which lately took place in the New York Academy of Medicine, on the comparative merits of ether and chloroform, as anæsthetic agents, which we find detailed in the Philadelphia *Medical and Surgical Reporter*, some interesting remarks were made by Prof. DALTON. Coming from so eminent a physiologist, they are, we conceive, entitled to much authority. The opinion of Dr. Dalton, as to the cause of death, in fatal cases of inhalation of chloroform, is, that this agent produces paralysis of the heart. To this conclusion he is led by observing the effects of ether and chloroform on animals who are caused to inhale them. If the process is carried to a moderate extent, and the chest of the animal be then opened as quickly as possible, the heart will continue to beat for a considerable length of time. If, however, the inhalation be pushed until respiration is stopped, it will be found, on

opening the chest, that though the heart be still beating, its movements are very feeble. If anæsthesia be carried only to the stoppage of respiration, the animal usually recovers; but if, when the respiration ceases, the heart also is still, the animal never recovers.

Now, although fatal results have occurred in Dr. Dalton's hands, in experimenting on animals, with both ether and chloroform, when inhalation is pushed to the extreme, he has been obliged to take a great deal of pains to produce this effect with ether, whereas death often follows the use of chloroform notwithstanding the best precautions. In fact, he has for this reason altogether abandoned the use of chloroform, and instead of it employs sulphuric ether. "I think I may say," he remarks, "without exaggeration, that I am thoroughly convinced that there is a radical difference in the danger following the administration of these two substances. I am sure that chloroform is more dangerous to animals, at least." Dr. Dalton also stated, in reply to the question from the president, Dr. WATSON, whether he had found ether fail to produce all the effects that can be wished for from chloroform, that it had never failed in his hands, and his experience would lead him to believe that it is capable of producing all the effects of chloroform.

We confidently expect that a reaction will soon take place in the mind of the medical public on this important subject. The fact that no well-authenticated case exists of death which can be attributed to the inhalation of ether, and that this agent is capable of producing all the effects, as an anæsthetic, which chloroform can, must ere long cause its universal substitution for the latter dangerous agent.

MICROMETER GIVING WITHOUT CALCULATION THE DIMENSIONS OF MICROSCOPIC OBJECTS.—[We translate from Dr. BROWN-SEQUARD'S *Journal de Physiologie* the following note by Dr. CORELIER, on a new micrometer.]

The measuring of objects is undeniably of the utmost importance for the microscopist. This is at present accomplished by means of an arbitrary scale, placed beneath the ocular. The relation of this scale to a millimeter divided into one hundred parts is first obtained: then ascertaining how many degrees of the scale are occupied by the object we wish to measure, we obtain the required dimensions by means of multiplication and division. This calculation, simple as it is, becomes tedious by repetition: it may be avoided in the following manner:—I place in the focus of the ocular a scale in which the millimeter is divided into ten parts, such as is found in all modern microscopes. I then ascertain the proportion existing between this division and the millimeter divided into 100 parts, or micrometer. Suppose that 27 divisions of the ocular equal 19 hundredths of a millimeter: I have another scale made, in which 27 tenths of a millimeter are divided into 19 parts. This new scale placed beneath the ocular gives at once, and without calculation, the hundredths of a millimeter, as can be easily ascertained by looking, in the microscope, at the millimeter divided into 100 parts, for the divisions of the two scales will exactly correspond. To obtain at once the thousandths, it would only be necessary to divide the 27 tenths of a millimeter into 190 parts, &c. Of course it is necessary always to employ the same objective, and hence it is well to construct the scale for the one which we are most in the habit of using. It is now a long time since I have made these micrometers for my own use, and I have found them so convenient that

I deem it my duty to explain their mode of construction, and to recommend their employment.

Health of the City.—The beneficial effects of the more general practice of vaccination, to the necessity of which the public are at last roused (more by their immediate fears at the spread of smallpox than in consequence of repeated warnings from the medical profession), have not yet begun to be apparent; but we doubt not, now that the proper precautions are taken, the epidemic will be speedily arrested. The deaths from this source, last week, include 4 children and 5 adults. We observe that 5 deaths from croup are reported, of subjects varying from 1 to 4 years. It is hardly possible that all these should have been cases of membranous croup. The deaths from consumption include 5 males, from 19 to 52 years old; and 8 females, from 22 to 52. Both of the deaths from old age were of females, one of whom, a negro woman, had attained the extraordinary age of 115 years! The deaths from unknown causes were all of males, including 7 children and 2 adults. One adult, aged 32, is reported as having "died of fits." There were 8 deaths from scarlatina, 3 from apoplexy, and 3 from pneumonia. Of the whole number (80), 38, or nearly one half, were children under 5 years of age; 9 were between 5 and 20, 13 were between 20 and 40, 12 between 40 and 60, and 8 over 60. The total number of deaths for the corresponding week of 1859 was 56, of which 21 were from consumption, 2 from pneumonia, 0 from smallpox, scarlatina, croup or apoplexy, 5 from old age, 12 unknown.

Certificates of Death.—A correspondent has sent us a copy of the *certificate of death* which the physicians of New London, Conn., are required to send to the registrar, within ten days after interment. It contains blanks for the name, date, age, sex, condition, &c.; a fee of twenty-five cents is allowed for each return. Similar certificates are in use in this city, only they are required to be returned by undertakers, and not by physicians.

Health of Providence, R. I.—Providence appears to be a remarkably healthy city. During the past year there were 899 deaths, out of a population of 52,000, being a mortality of one in 57.8 of the population living, or 17.3 deaths to each 1000 living. Of 479 persons of American parentage who died, only 28.6 per cent. were under 5 years of age; of 420 of foreign parentage, 48.3 per cent. were under 5 years; and of the whole number, American and foreign, 37.8 per cent. were under 5 years. Diphtheria was the cause of 17 deaths, 13 of which occurred during the last three months. Smallpox was fatal in 5 cases. It was introduced in the spring, from New York, and notwithstanding the large number of persons exposed to the contagion, the efforts to obtain a general vaccination were so successful that the disease was brought to an end, and banished from the city about the first of June, having caused the deaths of only four persons. There were no cases of the disease from the first of June until October. The disease was again brought to the city, about the tenth of October, from Boston. From that time until the end of the year, there were about 20 cases of the disease in different parts of the city, 18 of which were varioloid. *Providence Journal.*

Double Fœtus.—The following letter was accompanied by a photograph of the monstrosity described, upon which is printed, "Double Child of John D. W. and Martha R. Moore, of West Boylston, born Nov. 7, 1859. *Entered, according to the act of Congress*, in the year 1859, by J. D. W. Moore, in the Clerk's office," &c.! It will be seen that the specimen is for sale! Certainly if the abnormity be not unique, the attending circumstances are.

West Boylston, Mass., Dec. 29th, 1859.

Dear Sir.—I send you a photograph of a remarkable monstrosity that occurred in my obstetrical practice recently. It consisted of *two* female children, *joined together*, from the clavicle to the umbilicus, having a sternum on either side, and the ribs of each child meeting in a common sternum.

The thoracic and abdominal cavity was common to both. There was but one liver—double in size, with *two* gall-bladders, and extending entirely across the cavity, from side to side.

There was but one heart—double in size, with two aortas. There were four kidneys, of large size, with *two* ureters from each.

This monstrosity was still-born. They were 18 inches in length, and each head was 12 3-4 inches in circumference. Their weight was about 11 pounds. The labor was terminated successfully, and the mother is doing well. A copyright is secured on the photographs, but if you deem it of sufficient interest to the profession, you can insert a wood cut in your Journal, together with this history.

The monstrosity has been preserved, and is for sale.

Respectfully yours, Chas. A. Wheeler, M.D.

American Medical Association.—*Messrs. Editors*,—Please publish in the next issue of the Journal the following extract from the Treasurer's report:—

"Under the resolutions of last year, the volume of Transactions for 1857 (Vol. X.), now falls to $2.00 apiece; that for 1858 (Vol. XI.), remaining at $3.00 till the next annual meeting, so that the list of volumes for sale by the Association will now read—

Proceedings of first meeting in 1846–7, organizing the Association,	$0.50
Vol. I., at	2.00
Vols. II., III. and IV. are out of print.	
Vols. V., VII., VIII. and IX., if taken collectively,	5.00
For the set, if taken singly, apiece,	2.00
Vol. VI., at	2.00
Vol. X., at	2.00
Vol. XI., at	3.00

These back numbers of Transactions diminish in number yearly, while some pass out of print. Those members who own broken sets and desire to complete them, will find an increasing lack of opportunity.

Vol. XII., for 1859, is now published, and ready for delivery—price $3. Those gentlemen in this city or neighborhood, who are desirous of procuring this or any of the back volumes, are desired to send their orders, before the first of February, to Dr. J. N. Borland, No. 9 Chestnut street, Boston.

The number of lives lost by steamboat disasters on the western rivers in 1859, was 396.——Scarlet fever is prevailing in an epidemic form and with considerable fatality in Newark, N. J.

CAUTION TO DRUGGISTS.—Druggists who leave their places of business in charge of mere boys—boys unacquainted with either the nature or effects of the drugs they are permitted to handle, and entrust them with the power to dispense medicines to the lieges—are surely eminently blameworthy. It is a matter of some moment to the druggist himself when mistakes arise in these circumstances, but it is a matter of vital consideration to the unfortunate customer who may have swallowed a wrong dose. This week, in our town, an instance occurred illustrative of the danger of such carelessness. A lad of the name of Haldane, a compositor in a printing office in town, having complained of the state of his stomach, was recommended by a young medical student of his acquaintance to try an emetic. With this view, Haldane and his medical adviser went into the shop of a druggist in West Mill Street, and ordered the boy who served the shop to make up fifteen grains of powdered ipecacuanha. The boy, however (in the absence of his master, who, we are informed, was away at a public meeting), gave his ailing customer fifteen grains of tartar emetic. The dangerous dose was taken on the premises, but Haldane immediately became seriously unwell, when the mistake was noticed. A stomach-pump was immediately sent for, but from some cause or other it could not be procured. Meanwhile various remedies—such as mustard vomits, &c.—were applied to counteract the effects of the poison, and Haldane so far rallied as to be enabled to reach his lodgings. We believe the unfortunate lad suffered considerably for some days afterward, from the effects of the irritant poison upon the system, but though still weakly, he is happily out of danger.—*Alloa Advertiser.*

THE ITALIAN HOSPITALS AND THE WAR.—The medical report of the hospitals in Italy has just appeared in Paris, and is very interesting. There were no less than 43,000 wounded, including Austrians and Piedmontese, admitted into these establishments. The proportional quantity of dangerous wounds was exceedingly great. The surgeons of the republic found only one in five or six, but now one out of every two assumes that character. It is accounted for by the shape of the balls, which is now cylindro-conic. They traverse the air with immense rapidity, enter the flesh with great force, and break the bones; whereas the old spherical ball turned to the right or left, sometimes merely grazing the skull or ribs, which now seldom occurs. Of chloroform the advantages are spoken of in the highest terms. Not only has it caused insensibility during operations, but it has soothed the dying moments of those who were irrecoverable from the nature of their wounds. The new disinfecting agent has been found of the utmost service. Applied to the most diseased surfaces it has checked putrescence, and given a healthy character in a short time to the worst of wounds. Carbonized lint has been introduced also with great success as a disinfecting agent, preventing the fœtid odor that is so disgusting in military hospitals. Altogether it seems that modern civilization has rendered the field of battle more dangerous than formerly, but supplied it with means of alleviation.

GREAT DESTRUCTION OF LIFE.—One of the most terrible catastrophes on record occurred in Lawrence, Mass., on Tuesday afternoon, Jan. 10th. The Pemberton Mills fell, with a sudden crash, about 5 o'clock, while some 600 or 700 operatives were at work. Many hundreds were buried in the ruins; and while the dead and wounded were being removed, a fire broke out in the fallen mass, and fearfully increased the loss of life. Surgeons were called for and attended from all the neighboring towns. The full extent of the calamity cannot yet be ascertained.

ERRATUM.—Page 454, line 23, for "decrustation" read *demonstration.*

DIED,—In Brooklyn, N. Y., Dec. 25th, 1859, Robert Rosman, M.D., aged 53.—At Louisville, Ky., Dec. 19th, Dr. John L. Murray, in the 76th year of his age.

Deaths in Boston for the week ending Saturday noon, January 7th, 80. Males, 41—Females, 39.—Apoplexy, 3—abscess, 1—bronchitis, 3—inflammation of the brain, 3—congestion of the brain, 2—cancer, 1—consumption, 13—convulsions, 1—croup, 5—carbuncle, 1—dropsy, 1—dropsy in the head, 2—debility, 1 scarlet fever, 8—disease of the heart, 4—disease of the kidneys (Bright's), 1—inflammation of the lungs, 3—marasmus, 3—measles, 1—old age, 2—scrofula, 1—smallpox, 9—teething, 1—unknown, 9—whooping cough, 1.

Under 5 years, 38—between 5 and 20 years, 9—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 61—Ireland, 15—other places, 4.